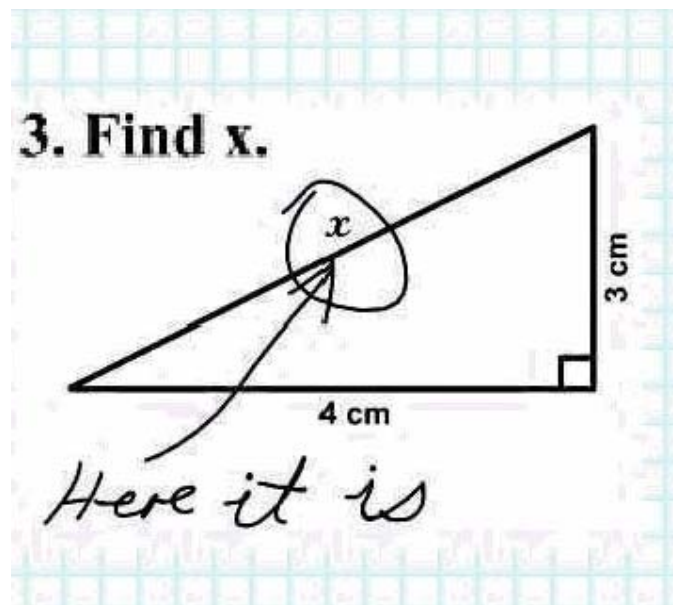


IT Applications

Exam Preparation Session



At least this guy can tell his kids he is a funny failure

Presenter Rob Mercer

Practice Questions

Section A - Multiple Choice Questions

Question 1

A technician locks the door to server room and uses fingerprint recognition to access the server.

This security is an example of

- A. physical and biometric.
- B. electronic and physical.
- C. biometric and biometric.
- D. electronic and electronic.

Question 2 *optional

	I37							
	A	B	C	D	E	F	G	H
1	Item	Price	Quantity	Price		Delivery	\$ 10.00	
2	Monkey	\$ 2,000.00	20	\$ 40,010.00				
3	Donkey	\$ 150.00	44					
4	Cat	\$ 2.00	5					
5	Frog	\$ 20.00	100					
6								
7								
8		Total Price						
9								
10								

The formula =COUNT(A3:A9) in cell A9 will return

- A. 5
- B. 4
- C. #####
- D. 3

Question 3

In a travel agency there are 8 embedded computers that connect to a server 25 metres away. Some of the information being sent to the server such as credit details are confidential

The most suitable transmission media would be:

- A. wireless.
- B. Fibre optic.
- C. USB (Universal Serial Bus).
- D. UTP (Unshielded Twisted Pair).

Question 4

The most appropriate data type for the field in a database storing ID Numbers such as 2008-123 would be:

- A. text.
- B. date/time
- C. number.
- D. autonumber

Question 5

The owner of a fast food chain wants to change his business to have a greater social responsibility.

This is an example of:

- A. a goal at a strategic level of decision making
- B. a mission statement at a strategic level of decision making
- C. a mission statement at tactical level of decision making
- D. a goal at a tactical level of decision making

Question 6

You are designing a tool to allow users to calculate GST on purchases (shown below). Users enter the “Amount including GST” then the tool calculates the amount of GST to withhold and the “Funding Amount excluding GST”.

	A	B	C	D	E	F
1						
2		How to Use the GST Calculator				
3		1. Input the GST Inclusive figure in the box.				
4		2. The GST that is included will be shown in the red box.				
5		3. The amount excluding GST will be shown in the blue box. This is the figure you should use in your annual budget.				
6						
7		GST Calculator				
8						
9						
10						
11		Amount including GST			\$ 6.21	
12						
13		GST to withhold			\$ 0.56	
14						
15		Funding Amount excluding GST			\$ 5.65	
16						
17						

In order to ensure the tool is accurate you need to perform some validation and testing.

The most accurate way to describe the validation and testing that needs to be performed would be:

- A. E11 needs to be validated and E13 and E15 need to be tested for accuracy
- B. E11 needs to be tested and E13 and E15 need to be validated for accuracy
- C. E11 and E15 need to be validated and E15 needs to tested for accuracy
- D. E11 and E15 need to be tested and E15 needs to validated for accuracy

Question 7

The efficiency of a new database system used by a business could be best evaluated by:

- A. Checking to see if there are less inaccuracies in the system
- B. Checking to see if the system is more complete than the last one
- C. Checking to see if the system is better presented than the last one
- D. Checking to see if there is a cost saving in the new system

Question 8

A mining company hires an Engineer who has to download a lot of large files from the company's server.

The most appropriate transmission media for the connection to the server would be:

- A. Wireless
- B. CAT5 – unshielded twisted pair
- C. Coaxial cable
- D. Infrared

Question 9

Sony wants to increase their market share of the Playstation to 30% of the game over the next 2 years.

This is an example of:

- A. an organisational goal at the tactical level of decision making.
- B. an organisational goal at the strategic level of decision making.
- C. an organisational objective at the tactical level of decision making.
- D. an organisational objective at the strategic level of decision making.

Section B – Short Answer Questions**Question 1**

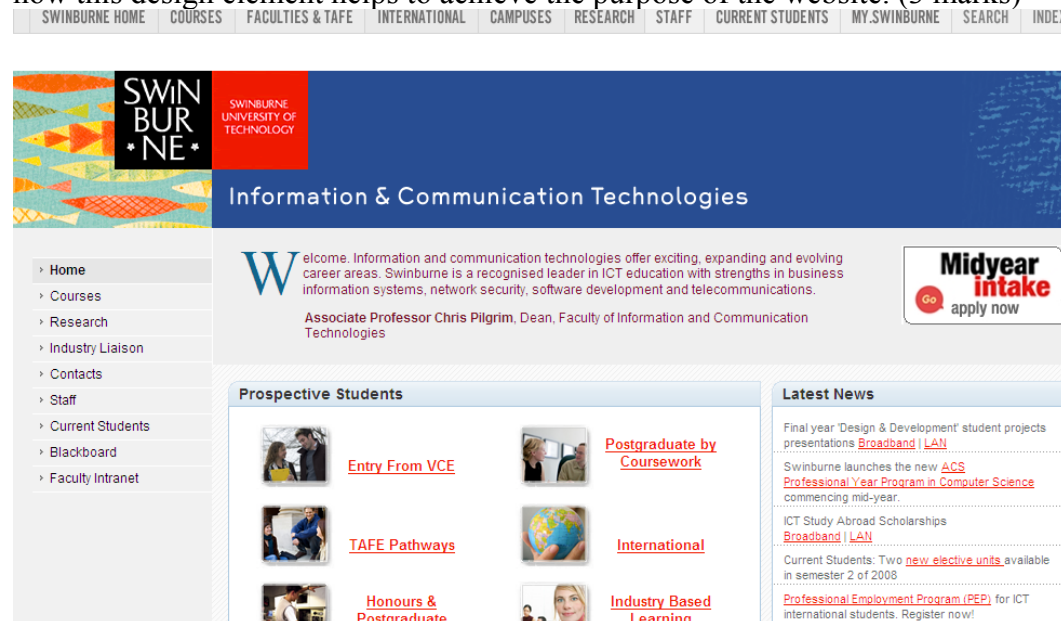
A bank user logs onto the bank website using a secure site, the site employs a method of encryption to ensure security. What is the difference between the Public Key and the Private key in encryption? Would the bank user be using the public or the private key? (3 Marks)

Question 2

Fred's School of Music uses Peer to Peer network architecture. List an advantage and a disadvantage of this choice? (2 marks)

Question 3

Describe one design element used to present Swinburne's information and explain how this design element helps to achieve the purpose of the website. (3 marks)



Question 4

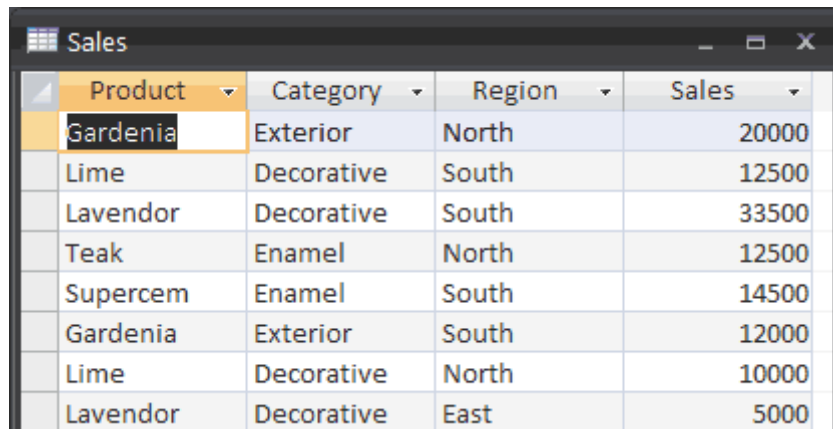
You have recommended updating the CSS for the company you work for. What design tool would you use to help you with the design? Explain why you would use that design tool. (3 marks)

Question 5

What location would you store your archived records? Explain why you would store them there. (3 marks)

Question 6

You decide to use an incremental backup schedule list one advantage and one disadvantage of this method. (2 marks)

Question 7

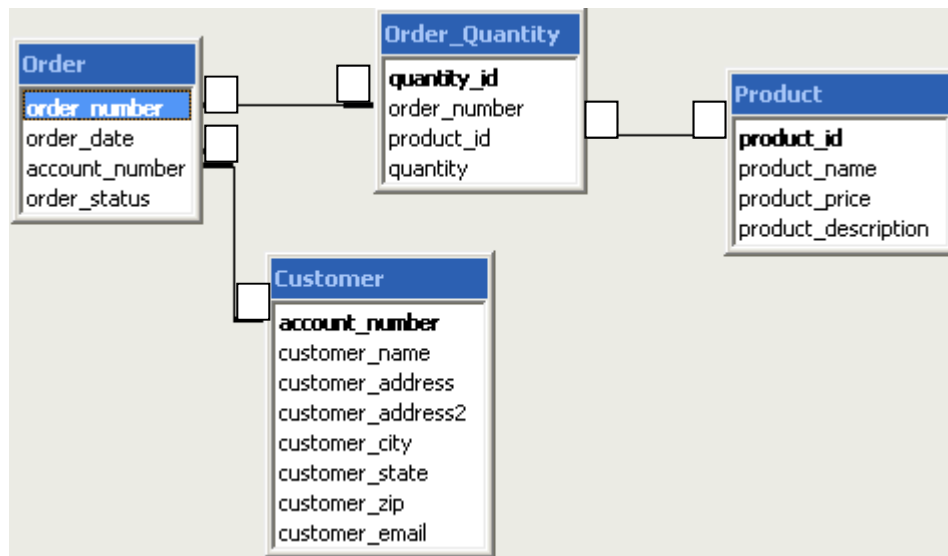
Product	Category	Region	Sales
Gardenia	Exterior	North	20000
Lime	Decorative	South	12500
Lavendor	Decorative	South	33500
Teak	Enamel	North	12500
Supercem	Enamel	South	14500
Gardenia	Exterior	South	12000
Lime	Decorative	North	10000
Lavendor	Decorative	East	5000

What will be returned if we enter the following code into a query for the above database table?

Code: Category < > Decorative, Sales >14000

Result: _____

Question 8



Fill in the 6 squares above with the correct symbols (1 or ∞) (3 marks)

Question 9

Table1 : Table			
	Field Name	Data Type	
	ID	AutoNumber	Unique idetification
	Video Name	Text	
	Rating	Yes/No	Personal rating out of 10
	Description	Text	500 word description of the video

What is wrong with the database design show above? (1 mark)

Question 10 *optional

	A	B	C	D	E	F	G	H
1		Grade	Score					
2	Tom	B+	83			0 F		
3	Dick	B	80			50 D		
4	Harry	A	91			65 C-		
5	Lisa	A	90			69 C		
6	Murry	C-	66			73 C+		
7	Manjet	B	81			77 B-		
8	Flub	B+	86			80 B		
9	Squimby	B	82			83 B+		
10	Stella	C+	76			87 A-		
11						90 A		
12						97 A+		
13								
14								
15								
16								

A formula has been used to figure out the student's Grade based on their Score and the Grade table to the left.

What is the formula in cell B2? (2 marks)

Before filling down this formula to from B2 to B10 what would you have to do to the formula? Explain why you would have to do this? (2 marks)

Question 11

You are designing a web page for senior citizens to keep track of their family history. How would the characteristics of this audience influence the content of site. Give an example in your answer.

2 marks

Question 12

Swinburne uses the following page to inform prospective students of their course offerings in their Faculty of ICT.



- a. Select one formatting feature of the web page and explain how it adds to the clarity of the information.

Feature _____

Explanation _____

2 marks

- b. Identify two conventions and explain how each adds to the usability of the information product.

Convention 1 _____

Explanation _____

Convention 2 _____

Explanation _____

4 marks

Question 13

There is an accidental release of a potentially lethal biological chemical at a Government manufacturing plant. There is a fear that some of the chemical has seeped into the water supply for the surrounding suburb. You work for the Government and they have told you not to let anyone know about the release until it is confirmed to have entered the water supply as it will cause undue panic.

You need to make a decision whether to tell the media about the release or not. You have three contacts you can call in order to help you with the ethical dilemma you are now having. Write a question you could ask each of the three contacts to help you with your ethical dilemma. Remember the clock is ticking!

a. Scientist testing the water

b. Media contact

c. Government Hazardous Materials disposal team captain

3 marks

Question 14

CTU (Counter Top Unit) sells miscellaneous items that are sold from the counter in convenience stores and service stations. Fred has created a Category and a Product table for stock records:

Category Table

Category Name (primary key)	Category Description
Music	Music CDs
DVD	Movie DVDs
Confectionary	Chocolates and Gummy
Toys	Small toys such as cars and figurines
Magazines	Range of magazines

Product Table

ProductID (primary key)	Product Name	Category Name	Unit Price \$	Quantity in Stock
mus001	Sting Live	Music	\$15.00	15
dvd001	Sin City	DVD	\$20.00	8
mus002	The Music	Music	\$15.50	7
conf001	Gummy Hat	Confectionary	\$4.50	21
conf002	Gummy Shoes	Confectionary	\$4.00	25

- a. Recommend and justify a choice for the **ProductID** field. Justify your answer.

2marks

- b. A query is being designed to show all confectionary or items below \$16. Write the rule for the query to filter out the unwanted records.

1 mark

- c. A rule is written to ensure that when the “Quantity in Stock” field is entered the number must be between 1 and 10 000. How does this rule help enhance the quality of the information in the database.

2 marks

- d. Label with correct symbols the type of relationship that would exist between the two tables.

Category
Category Name
Category Description

Product
Product_ID
Product Name
Category Name
Unit Price
Quantity in Stock

3 marks

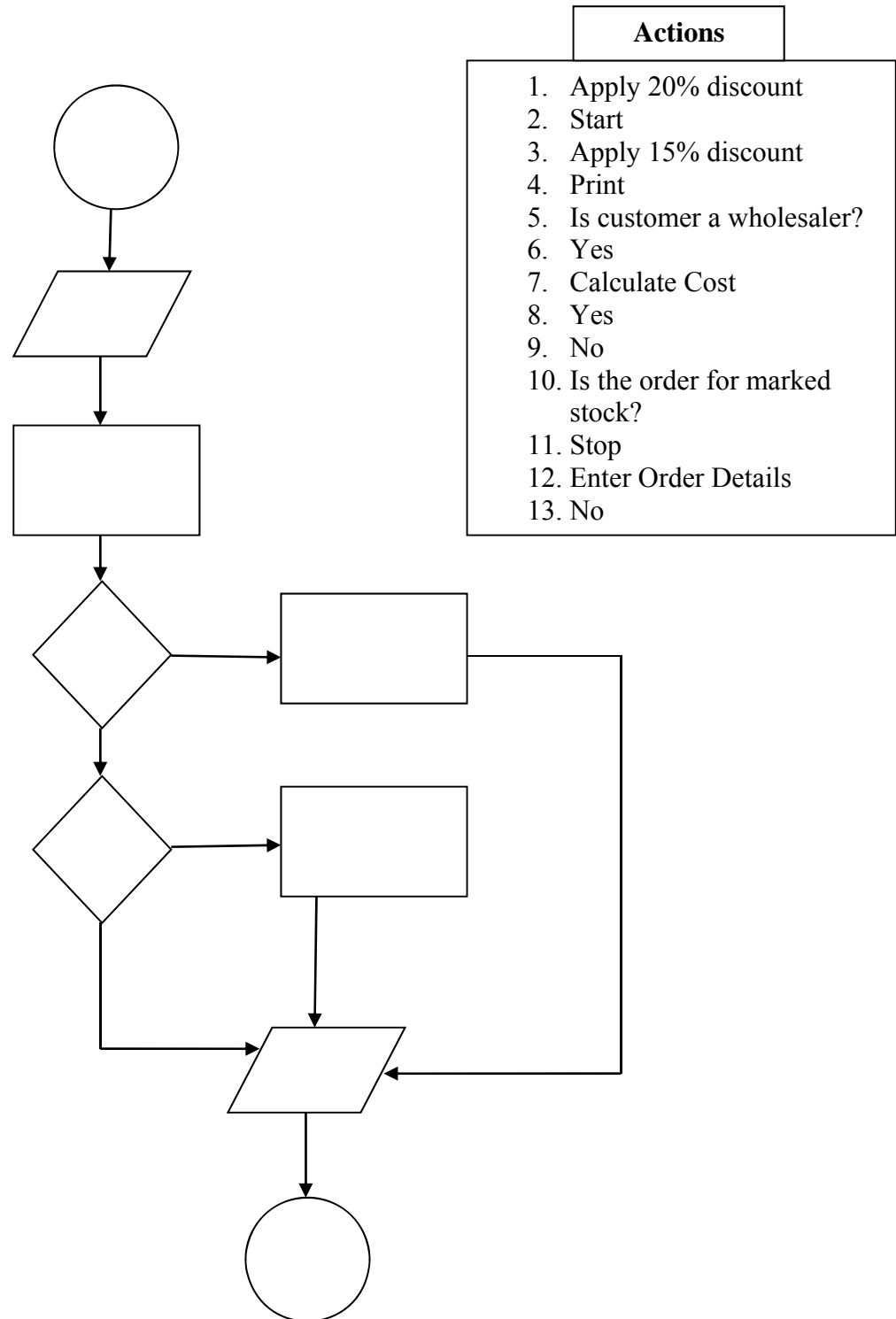
- e. Explain what type of relationship you chose and why you chose it.

2 marks

Question 15

Jack runs a mattress warehouses where he sells direct to public and wholesalers. Wholesalers get a 20% discount on all stock. The public get a 15% discount on marked stock.

Place the corresponding number to the correct location in the flowchart shown below:



Question 16

- a. Fred uses the following table to record details of hockey games he manages. Explain the process of setting the following table to third normal form. Explain why it is important for RDBMS tables to be normalised.

Person	Address	Game/Position
Fred Smith	83 Tree Street, Coburg, VIC 3234	Rnd 3, Full Back
Rob Bogong	73 Bush Ave, Fitzroy, VIC, 3456	Rnd 4, Goalie
Scott Sellman	1 Arbor Crt, Moonee Ponds, 3427	Rnd 3, Center
John Navarron	45 Souter Way, Essendon, 3245	Rnd 4, Wing

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.

8 marks

- b. If I was to create an entity relationship diagram (ERD) of the table above, what would my “attributes” be? Justify your selection.

3 marks

- c. Fred would like to use a web form to enter details into this database, state two advantages and two disadvantages of using a web form for this.

4 marks

- d. Fred would like to employ a cloud service to store the back-end of the database. State two advantages and two disadvantages for doing this.

4 marks

*Answers to this practice exam can be found on our website – I will email you the URL.